

Role of phase and kinetics models in simulation modeling of in situ combustion

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Abstract

© 2015 Springer Science+Business Media New York. Based on a review of recent foreign publications, we examine the typical features in simulation modeling of in-situ combustion of high-viscosity crude oils and natural bitumens. We pay special attention to phase and kinetics models, and also examine the differences between combustion of heavy and light oils. We formulate approaches and describe important aspects on which we need to focus when comparing models.

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Keywords

Heavy oil, In-situ combustion, Kinetics model, Phase model, Pseudocomponents